

IN THE CLAIMS:

The following is a complete listing of the claims, and replaces all earlier version and listings.

1. (currently amended): An image processing apparatus for ~~applying image processing~~ [[to]] multilevel image data ~~input thereto~~, comprising:

dividing means for dividing the [[input]] multilevel image data into pixel blocks each comprising a plurality of pixels;

conversion tables ~~having each containing~~ a plurality of items of conversion data, each ~~of which is~~ item corresponding to a pixel position in each pixel block obtained by division by said dividing means; ~~and~~

conversion means for converting, by referring to said conversion tables, ~~each item~~ multi-level image data of a pixel [[data]] of each pixel block obtained by division by said dividing means, into data corresponding to that pixel [[data]] in the pixel block; and

quantization means for quantizing the data corresponding to the pixel in the pixel block produced by said conversion means,

wherein each item of the conversion data of each of said conversion tables has been set in such a manner that an average value of the data corresponding to the pixel in the pixel block converted by said conversion means, takes on a value that is based on the [[pixel]] multilevel image data within the block.

2. (currently amended): The apparatus according to claim 1, wherein each item of the conversion data is data for converting luminance data to density data.

3. (currently amended): The apparatus according to claim 1, wherein each item of the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted by said conversion means.

4. (currently amended): The apparatus according to claim 1, wherein the conversion tables output the data upon having the multilevel image data input thereto[[;]], and wherein the data differs depending upon the position even if the multilevel image data is same.

5. (currently amended): An image processing method for applying image processing [[to]] multilevel image data applied as an input, comprising:
a dividing step, of dividing the [[input]] multilevel image data into pixel blocks each comprising a plurality of pixels; and
a conversion step, of converting each item multilevel image data of a pixel [[data]] of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each corresponding to each pixel position in each pixel block obtained by division [[at]] in said dividing step, into data corresponding to each that pixel in the block; and

a quantizing step, of quantizing the data corresponding to the pixel in the pixel block produced in said conversion step.

wherein each item of the conversion data of each of said the conversion tables has been set in such a manner that an average value of the data in each corresponding to pixel in the pixel block converted [[at]] in said conversion step, takes on a

value that is based on [[a]] corresponding [[pixel]] multi-level image data within the pixel block.

6. (currently amended): The method according to claim 5, wherein each item of the conversion data is data for converting luminance data to density data.

7. (currently amended): The method according to claim 5, wherein each item of the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted [[at]] in said conversion step.

8. (currently amended): The method according to claim 5, wherein the conversion tables output the data upon having the multilevel image data input thereto as an address[[;]], and wherein the data differs depending upon the position even if the address is the same.

9. (original): A computer-readable storage medium storing a control program for executing the image processing set forth in claim 5.

10. (currently amended): A printing control apparatus to which multilevel image data is input for generating printing data to control an image printing apparatus, comprising:

dividing means for dividing the [[input]] multilevel image data into pixel blocks each comprising a plurality of pixels;

conversion tables having a plurality of items of conversion data, each of ~~which is~~ item corresponding to a pixel position in each pixel block obtained by division by said dividing means; [[and]]

conversion means for converting, by referring to said conversion tables, each item multilevel image data of a pixel [[data]] of each pixel block obtained by division by said dividing means, into data corresponding to that pixel [[data]] in the pixel block; and

print-data generating means for generating print data, which is for being printed by said image printing apparatus, based upon the data converted by said conversion means[[;]], said print-data generating means including quantization means for quantizing the data corresponding to pixel in the pixel in the pixel block produced by said conversion means.

wherein each item of the conversion data of each of said conversion tables has been set in such a manner that an average value of the data ~~in~~ each corresponding to the pixel in the pixel block converted by said conversion means, takes on a value that is based on the [[pixel]] multilevel image data within the pixel block.

11. (currently amended): The apparatus according to claim 10, wherein each item of the conversion data is data for converting luminance data to density data.

12. (currently amended): The apparatus according to claim 10, wherein each item of the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data corresponding to pixel data converted by said conversion means.

13. (currently amended): The apparatus according to claim 10, wherein the conversion tables output the data upon having the multilevel image data input thereto[[;]], and wherein the data differs depending upon the position even if the multilevel image data are the same.

14. (currently amended): A printing control method for inputting multilevel image data and generating print data to control an image printing apparatus, comprising:

a dividing step, of dividing the [[input]] multilevel image data into pixel blocks each comprising a plurality of pixels;

a conversion step, of converting each item multilevel image data of a pixel [[data]] of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each corresponding to each pixel position in each pixel block obtained by division [[at]] in said dividing step, into data corresponding to each that pixel [[data]] in a pixel block; and

a print-data generating step, of generating print data, which is for being printed by said image printing apparatus, based upon the data converted at produced in said conversion step[[;]], said print-data generating step including a quantization step of quantizing the data corresponding to the pixel in the pixel block produced in said conversion step,

wherein each item of the conversion data of each of said the conversion tables has been set in such a manner that an average value of the data in each corresponding to the pixel in the pixel block converted [[at]] in said conversion step, takes on a value that is based on each pixel multilevel image data within the pixel block.

15. (currently amended): The method according to claim 14, wherein each item of the conversion data is data for converting luminance data to density data.

16. (currently amended): The method according to claim 14, wherein each item of the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data ~~converted at~~ produced in said conversion step.

17. (currently amended): The method according to claim 14, wherein the conversion tables output the data having the multilevel image data input thereto as an address[[;]], and wherein the data differs depending upon the position even if the address is the same.

18. (currently amended): A printer driver to which multilevel image data is input for generating print data, comprising:

 a module of a dividing step of dividing the [[input]] multilevel image data into pixel blocks each comprising a plurality of pixels;

 a module of a conversion step of converting each item multilevel image data of a pixel [[data]] of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each corresponding to each pixel position in each pixel block obtained by division by the said module of said the dividing step; and

 a module of a print-data generating step of generating print data, which is for being printed by said the image printing apparatus, based upon the data converted

produced by the said module of said the conversion step[[]], the print-data generating step including a quantization step of quantizing the data corresponding to pixel in the pixel block produced by said module of the converting step,

wherein each item of the conversion data of each of said the conversion tables has been set in such a manner that an average value of the data in each corresponding to the pixel in the pixel block converted by the module of said the conversion step, takes on a value that is based on the [[pixel]] multilevel image data within the pixel block.

19 (currently amended): The printer driver according to claim 18, wherein each item of the conversion data is data for converting luminance data to density data.

20. (currently amended): The printer driver according to claim 18, wherein each item of the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted by the module of said the conversion step.

21. (currently amended): The printer driver according to claim 18, wherein the conversion tables output the data upon having the multilevel image data input thereto as an address, and wherein the data differs depending upon the position even if the address is the same.

22. (original): A computer-readable storage medium storing a control program for executing the recording control method set forth in claim 14.

23. (currently amended): A computer-readable storage medium storing
software for performing the functions of the printer driver set forth in claim 18.